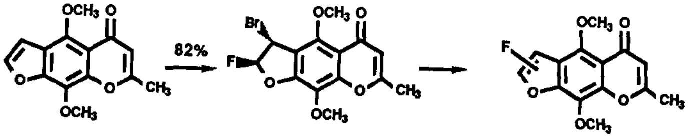
GRAPHICAL ABSTRACTS

Tetrahedron Lett. 28,4003(1987)

THE SYNTHESIS OF 2- AND 3-FLUOROKHELLIN

S.A. Nash and R.B. Gammill
The Upjohn Company, Kalamazoo, Mich. 49001

Bromofluorination of khellin provides a fluorine containing intermediate which can be readily converted into both 2- and 3-fluorokhellin.

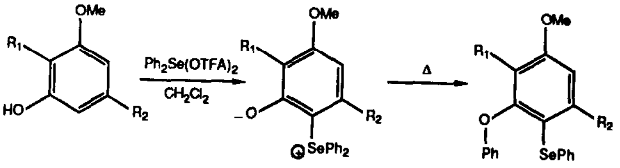


Tetrahedron Lett. 28,4007(1987)

SYNTHESIS AND REARRANGEMENTS OF ortho-SELENONIUM PHENOXIDES

J. P. Marino* and Scott Dax
Department of Chemistry, The University of Michigan, Ann Arbor, MI 48109

A new class of selenonium phenoxides is prepared from diphenyl selenium bis(trifluoroacetate) and o-substituted phenols. These o-selenonium zwitterions undergo a thermal rearrangement to produce diaryl ethers.

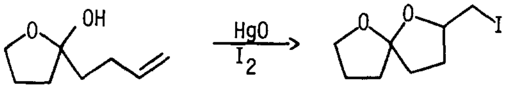


Tetrahedron Lett. 28,4011(1987)

ALKOXY RADICALS IN ORGANIC SYNTHESIS. A NOVEL APPROACH TO SPIROKETALS

George A. Kraus* and Jeff Thurston
Department of Chemistry, Iowa State University, Ames, Iowa 50011

Photolysis of an unsaturated hemiketal with HgO and I_2 affords a spiroketal.

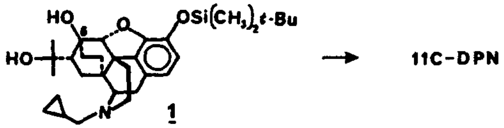


Tetrahedron Lett. 28,4015(1987)

SYNTHESIS OF CARBON-11 LABELED DIPRENORPHINE: A RADIOLIGAND FOR POSITRON EMISSION TOMOGRAPHIC STUDIES OF OPIATE RECEPTORS

John R. Lever,* Robert F. Dannals, Alan A. Wilson,
Hayden T. Ravert and Henry N. Wagner, Jr.
Departments of Environmental Health Sciences
and Radiology, The Johns Hopkins Medical Institutions,
Baltimore, MD 21205, USA.

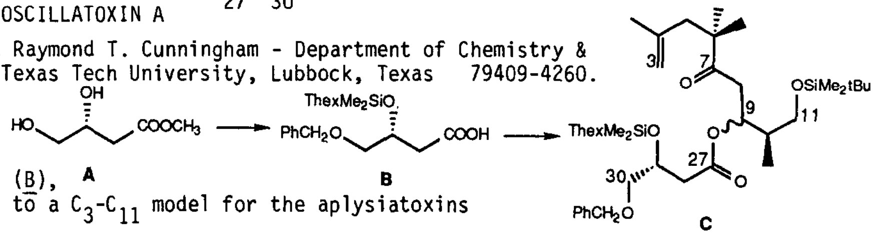
Selective alkylation of 1 with $[^{11}C]$-MeI followed by desilylation affords $[^{11}C]$-diprenorphine ($[^{11}C]$-DPN) labeled at the 6-methoxy position in 10% yield with a specific activity of 1740 mCi/μmol at the end of a 30 minute synthesis.



Tetrahedron Lett. 28, 4019 (1987)

STUDIES ON THE SYNTHESES OF THE APLYSIATOXINS: SYNTHESIS OF A SELECTIVELY-PROTECTED FORM OF THE C_{27}-C_{30} (DIHYDROXYBUTANOATE) MOIETY OF OSCILLATOXIN A

Robert D. Walkup* and Raymond T. Cunningham - Department of Chemistry & Biochemistry, Texas Tech University, Lubbock, Texas 79409-4260.



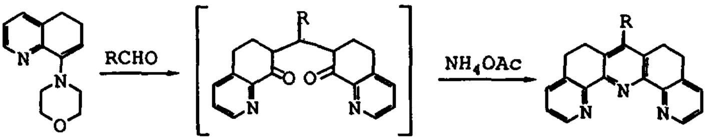
Selective benzylation of diol A via BnBr/Ag_2O/ultrasound led to the title compound (B), which cleanly coupled to a C_3-C_{11} model for the aplysiatoxins to form the ester C.

Tetrahedron Lett. 28, 4023 (1987)

POLYAZA CAVITY SHAPED MOLECULES 13. A VERSATILE NEW TERPYRIDINE SYNTHESIS

Vidyadhar Hegde, Yurngdong Jahng, and Randolph P. Thummel*
Department of Chemistry, University of Houston, Houston, Texas 77004

The reaction of morpholine enamines derived from α-pyridyl ketones with aromatic aldehydes leads to the formation of a 1,5-diketone intermediate which in turn provides a 4'-substituted derivative of 2,2';6'2"-terpyridine.

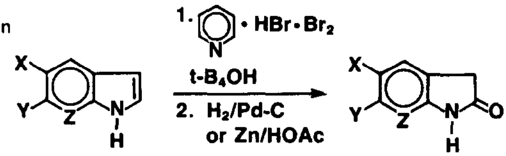


Tetrahedron Lett. 28, 4027 (1987)

OXIDATION OF INDOLES WITH PYRIDINIUM BROMIDE PERBROMIDE A SIMPLE AND EFFICIENT SYNTHESIS OF 7-AZAOXINDOLES

Anthony Marfat* and Michael P. Carta
Central Research, Pfizer Inc., Groton, CT 06340

Indoles and azaindoles on treatment with pyridinium bromide perbromide in t-butanol give 3,3-dibromooxindoles which, upon further hydrogenation or reduction, yield the corresponding oxindoles.

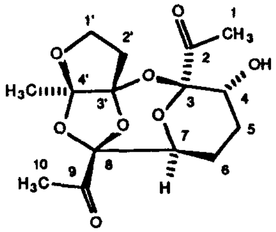


Tetrahedron Lett. 28, 4031 (1987)

A NOVEL TETRACYCLIC POLYKETAL FROM THE MARINE RED ALGA *LAURENCIA CHILENSIS*

M. Bittner, F. Gonzalez, H. Valdebenito, and M. Silva*, Laboratorio de Quimica de Productos Naturales, Universidad de Concepcion, Casilla 2407, Apartoado 10, Concepcion, CHILE
V.J. Paul and W. Fenical*, Scripps Institution of Oceanography, La Jolla, CA 92093
M.H.M. Chen and Jon Clardy*, Department of Chemistry-Baker Laboratory, Cornell University, Ithaca, NY 14853-1301

An unusual tetracyclic polyketal (1) was isolated from the red alga *Laurencia chilensis*. Structure 1 was established by x-ray diffraction and spectral methods.

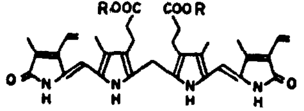


Tetrahedron Lett. 28, 4033 (1987)

CONFORMATION OF BILIRUBIN ESTERS FROM CD SPECTROSCOPY

David A. Lightner*, Man-Hua Zhang and Francesc R. Trull
Chemistry Department, University of Nevada, Reno, NV 89557

Optically active (4Z,15Z)-bilirubin-IXα mono and diesters were prepared from the methanesulfonate of S-(+)-2-butanol. The more intense bisignate CD of the mono-ester is characteristic of exciton coupling in a folded, partially intramolecularly H-bonded conformation.



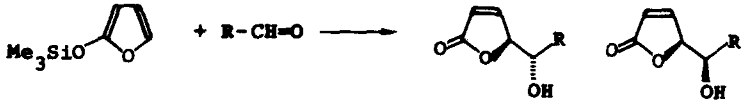
monoester: $\Delta\epsilon_{max}^{405}$ +10.2, $\Delta\epsilon_{max}^{450}$ -15.7 (CH_2Cl_2)

diester: $\Delta\epsilon_{max}^{400}$ + 1.3, $\Delta\epsilon_{max}^{450}$ - 1.7 (CH_2Cl_2)

Tetrahedron Lett. 28, 4037 (1987)

DIASTEREOSELECTIVITY IN THE DIRECTED ALDOL CONDENSATION OF 2-TRIMETHYLSILOXYFURAN WITH ALDEHYDES. A STEREODIVERGENT ROUTE TO THREO AND ERYTHRO δ-HYDROXY-γ-LACTONES

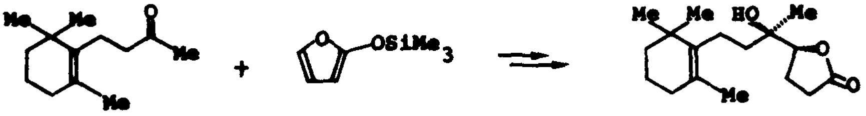
Charles W. Jefford, Danielle Jaggi, and John Boukouvalas,
Department of Organic Chemistry, University of Geneva, 1211 Geneva 4, Switzerland



Tetrahedron Lett. 28, 4041 (1987)

THE SYNTHESIS OF (±)-CAVERNOSINE

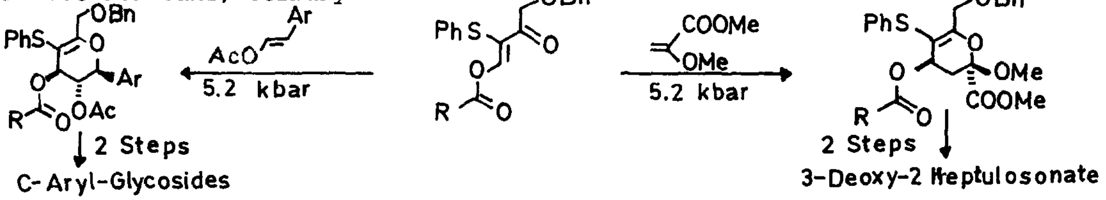
Charles W. Jefford, Danielle Jaggi, Gérald Bernardinelli and John Boukouvalas,
Department of Organic Chemistry and Laboratory of Crystallography, University of Geneva, 1211 Geneva 4, Switzerland



Tetrahedron Lett. 28, 4045 (1987)

C-ARYL-GLYCOSIDES AND 3-DEOXY-2-GLYCULOSONATES VIA INVERSE TYPE HETERO-DIELS-ALDER REACTION

Richard R. Schmidt*, Wendelin Frick, Brigitte Haag-Zeino, and Satyam Apparao, Fakultät Chemie, Universität Konstanz, Postfach 5560, D-7750 Konstanz, Germany

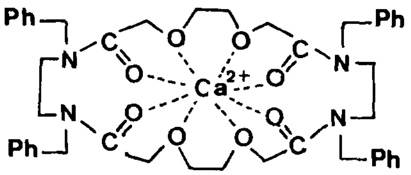


Tetrahedron Lett. 28,4049(1987)

UN TETRALACTAME MACROCYCLIQUE DERIVE DE L'ACIDE DIOXA-3,6 OCTANEDIOIQUE, NOUVEL IONOPHORE NEUTRE SELECTIF DU CALCIUM

Nadine LEYGUE, Louis CAZAUX, Claude PICARD and Pierre TISNES
Synthèse et Physicochimie organique, UA CNRS N° 471,
Université Paul Sabatier - 118, route de Narbonne
31062 TOULOUSE CEDEX (FRANCE)

Synthetic procedure to the tittle compound and its complexation ability and selectivity forward Ca^{2+} is described

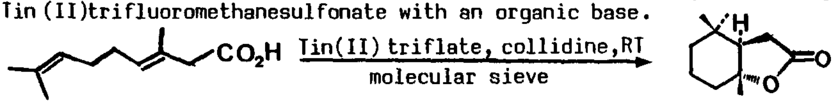


Tetrahedron Lett. 28,4053(1987)

CYCLISATION ELECTROPHILE INDUITE PAR LE TRIFLATE STANNEUX : SYNTHESE DU (±)-TETRAHYDROACTINIDIOLIDE TRANS

Noukpo GNONLONFOUN et Henri ZAMARLIK
Laboratoire de Chimie Organique et Biologique - Faculté des Sciences et Techniques
Université de TOURS Parc de Grandmont 37200 TOURS FRANCE

Title compound was prepared by a one pot reaction starting from homogeranic acid and using Tin (II)trifluoromethanesulfonate with an organic base.

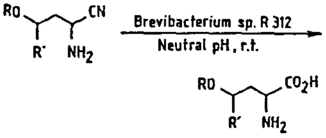


Tetrahedron Lett. 28,4057(1987)

BACTERIA IN ORGANIC SYNTHESIS : γ-ALKOXY-α-AMINOACIDS FROM RELATED α-AMINONITRILES.

Yen Vo-Quang*[1], Dominique Marais[1], Liliane Vo-Quang[1] and François Le Goffic[1].
Alain Thiéry[2], Marc Maestracci[2], Alain Arnaud[2] and Pierre Galzy[2].

[1] Laboratoire de Bioorganique et Biotechnologies, Ecole Nationale Supérieure de Chimie de Paris, 11 rue P. et M. Curie 75231 PARIS Cédex 05 (France).
[2] Chaire de Génétique et Microbiologie, Ecole Nationale Supérieure Agronomique, place P. Viala 34060 MONTPELLIER Cedex (France).

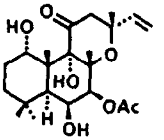


Tetrahedron Lett. 28,4061(1987)

RETROSYNTHETIC STUDIES WITH FORSKOLIN

Bernard Delpech and Robert Lett
Laboratoire CNRS/ROUSSEL UCLAF - BP 9 - 93230 Romainville (France)

New preparations of some dihydro-γ-pyrones i derived from forskolin 1 are reported. Conjugate addition of cuprates is shown to occur on i, in good yield, in the presence of BF_3-Et_2O : dimethyl and vinyl cuprates add with major α stereoselectivity, whereas dibutyl cuprate adds mostly β.



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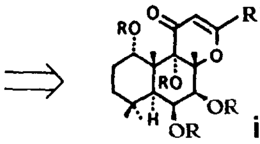

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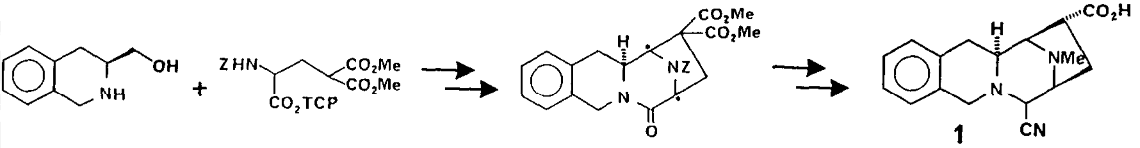
Tetrahedron Lett.28,4065(1987)

SYNTHETIC APPROACH TO QUINOCARCIN

Hiromitsu Saito and Tadashi Hirata*
Tokyo Research Laboratories, Kyowa Hakko Kogyo Co.,Ltd.
3-6-6, Asahi-machi, Machida-shi, Tokyo, Japan



Tetrahedron Lett.28,4069(1987)

A REVERSIBLE AND SPECIFIC MULTIPLE BINDING OR ADSORPTION OF DITHIONITE ANION ON CATIONIC MICELLAR SURFACE.

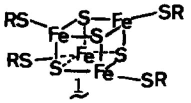
Iwao Tabushi, Yasuhisa Kuroda*, Yoro Sasaki
Department of Synthetic Chemistry, Kyoto University, Sakyo-ku, Kyoto, 606, Japan

The kinetic analysis of the reduction of $\underset{\sim}{1}$ in aq.CTAB-$S_2O_4^=$ solution indicated the multiple binding equilibrium between micelles and $S_2O_4^=$ (n=19±7,K=1300±400M^{-1},k=2200±300M$^{-1/2}$.s^{-1}).

$$M\cdot\underset{\sim}{1}^{ox.} \rightleftharpoons M\cdot\underset{\sim}{1}^{ox.}\cdot(S_2O_4^=)_i \xrightarrow{e} M\cdot\underset{\sim}{1}^{red.}\cdot(S_2O_4^=)_{i-1}$$

M;CTAB micelle, i=1-n.

R=$CH_2CH(CO_2Na)NHCOC_{17}H_{35}$-n-L

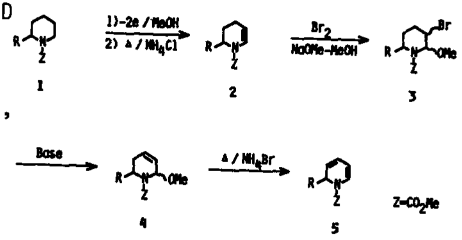


Tetrahedron Lett.28,4073(1987)

A NEW METHOD FOR REGIOSELECTIVE SYNTHESIS OF 2-SUBSTITUTED 1-(METHOXYCARBONYL)-1,2-DIHYDROPYRIDINES

Tatsuya Shono,* Yoshihiro Matsumura, Osamu Onomura, and Yasufu Yamada
Department of Synthetic Chemistry, Faculty of Engineering, Kyoto University, Yoshida, Sakyo, Kyoto 606, JAPAN

A facile synthesis of 2-substituted 1-(methoxycarbonyl)-1,2-dihydropyridines 5 from 2-substituted piperidines 1.

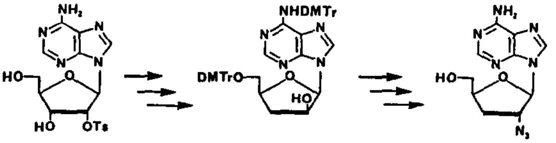


Tetrahedron Lett.28,4075(1987)

THE FACILE SYNTHESIS OF 2'-AZIDO-2',3'-DIDEOXYADENOSINE. PREPARATIVE APPLICATIONS OF THE DEOXYGENATIVE [1,2]-HYDRIDE SHIFT AND β-ELIMINATION REACTIONS OF SULFONATES WITH Mg(OMe)$_2$-NaBH$_4$

Masajiro Kawana* and Hiroyoshi Kuzuhara
RIKEN (The Institute of Physical and Chemical Research), Wako-shi, Saitama 351-01, Japan

The title compound was prepared from 2'- or 3'-O-tosyladenosine in 37 or 51% overall yield, respectively.

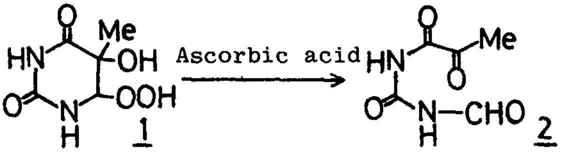


Tetrahedron Lett. 28, 4079 (1987)

AN UNUSUAL REACTION OF CIS-6-HYDROPEROXY-5-HYDROXY-5,6-DIHYDROTHYMINE WITH ASCORBIC ACID

Toshio Itahara
College of Liberal Arts, Kagoshima University, Korimoto, Kagoshima 890, Japan

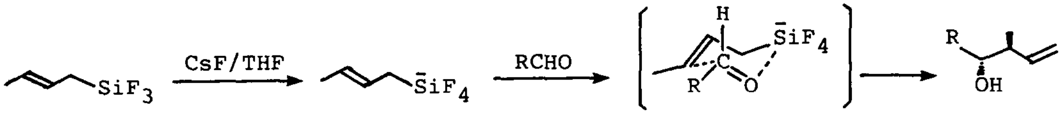
CIDNP was observed on reaction of 1 with ascorbic acid in D_2O at room temperature to give 2.



Tetrahedron Lett. 28, 4081 (1987)

REGIOSPECIFIC AND HIGHLY STEREOSELECTIVE ALLYLATION OF ALDEHYDES WITH ALLYLTRIFLUOROSILANE ACTIVATED BY FLUORIDE IONS

Mitsuo Kira,* Mineo Kobayashi, and Hideki Sakurai*
Department of Chemistry, Tohoku University, Sendai 980, Japan

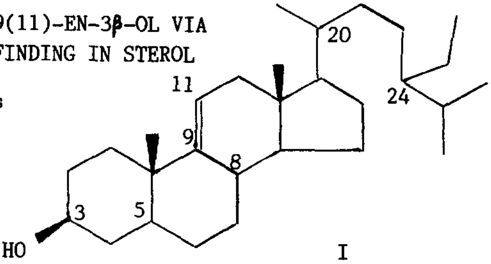


Tetrahedron Lett. 28, 4085 (1987)

DIRECT CYCLISATION OF SQUALENE TO 5α-STIGMAST-9(11)-EN-3β-OL VIA $\Delta^{9(11)}$LANOSTEROL IN COSTUS SPECIOSUS: A UNIQUE FINDING IN STEROL BIOSYNTHESIS.

A.AKHILA, M.M.GUPTA & R.S.THAKUR
Central Institute of Medicinal & Aromatic Plants
Lucknow, India 226 016

Squalene metabolises into 5α-stigmast-9(11)-en-3β-ol (I) via $\Delta^{9(11)}$Lanosterol rather than $\Delta^{8(9)}$Lanosterol. A report for the first time in sterol biosynthesis in higher plants.



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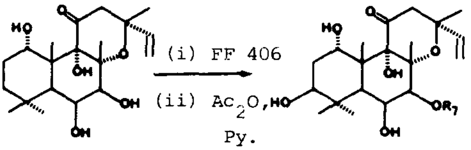
Tetrahedron Lett. 28, 4089 (1987)

SYNTHESIS OF METABOLITES OF FORSKOLIN

Y. Khandelwal*, N.J. de Souza, S.Chatterjee, B.N.Ganguli and R. H. Rupp
Centre For Basic Research, Hoechst India Limited, Bombay 400 080, INDIA.

Microbial and chemical transformations of 7-deacetylforskolin are described leading to 3ß-hydroxy forskolin and its derivatives which have been found to be metabolites of forskolin.

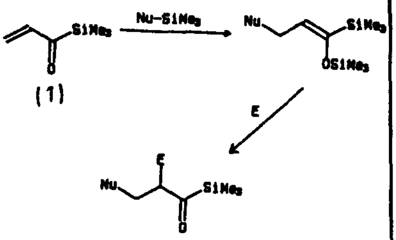


Tetrahedron Lett.28,4093(1987)

SYNTHESIS OF POLYFUNCTIONALIZED ACYLSILANES VIA PROPENOYLTRIMETHYLSILANE

A.Ricci, A.Degl'Innocenti, G.Borselli and G.Reginato
Centro CNR Composti Eterociclici, c/o Dipartimento
di Chimica Organica, via Capponi 9, Firenze, Italy.

Propenoyltrymethylsilane (1) reacts with a wide series of silylated nucleophiles affording β-functionalized silyl enol ethers of acylsilanes: "in situ" reaction of these compounds leads to polyfunctionalized acylsilanes.



Tetrahedron Lett.28,4097(1987)

STEREOSELECTIVITY DURING NITRILE OXIDE-OLEFIN CYCLOADDITIONS. SYNTHESIS OF FUSED AZETIDINES

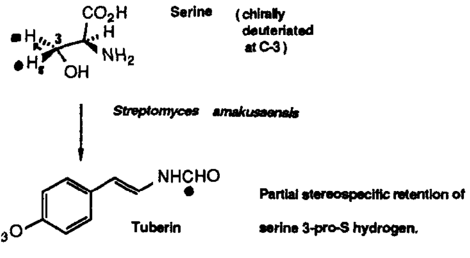
Alfred Hassner* and K.S. Keshava Murthy
Department of Chemistry, Bar-Ilan University, Ramat-Gan 52100, Israel

Two routes are described for converting vinyl azetidine 7 into the nitrile oxides 6, which undergo stereoselective dipolar cycloaddition to fused azetidines.

Tetrahedron Lett.28,4101(1987)

STEREOCHEMISTRY ASSOCIATED WITH THE CONVERSION OF SERINE THROUGH METHYLENETETRAHYDROFOLATE AND METHENYLTETRAHYDROFOLATE IN THE BIOSYNTHESIS OF TUBERIN

K.M.Cable & R.B.Herbert,Dept. of Organic Chemistry, The University, Leeds LS2 9JT
V.Bertram & D.W.Young, School of Chemistry and Molecular Sciences, University of Sussex, Falmer, Brighton BN1 9QJ.



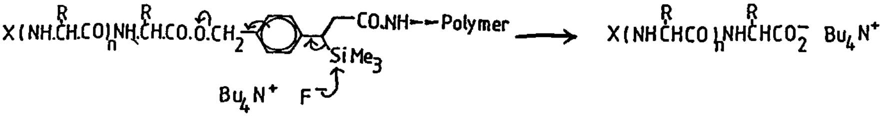
Partial stereospecific retention of serine 3-pro-S hydrogen.

Tetrahedron Lett.28,4105(1987)

SOLID PHASE PEPTIDE SYNTHESIS: FLUORIDE ION RELEASE FROM THE RESIN.

R RAMAGE*, C.A. BARRON, S. BIELECKI and D.W. THOMAS
Department of Chemistry, University of Edinburgh,
West Mains Road, Edinburgh, EH9 3JJ, Scotland, UK

Synthesis of a linker for solid phase peptide synthesis which allows release by Bu_4N+F- of the product peptide



$$X(NH\overset{R}{C}H.CO)_nNH.\overset{R}{C}H.CO.O.CH_2\text{-}C_6H_4\text{-}CH(SiMe_3)CH_2CO.NH\text{--}Polymer \xrightarrow{Bu_4N^+\ F^-} X(NH\overset{R}{C}HCO)_nNH\overset{R}{C}HCO_2^-\ Bu_4N^+$$

Tetrahedron Lett. 28, 4109 (1987)

SYNTHESIS, STRUCTURE AND REACTIVITY OF 4-ACETYLAMINO-9a-ACETOXY-1,9,10-ANTHRACENETRIONE

Francisco Fariña, M. Carmen Paredes and Valter Stefani
Instituto de Química Orgánica General, C.S.I.C., 28006 Madrid, Spain, and
Instituto de Química U.F.R.G.S., 90.000 Porto Alegre (RS), Brasil

The synthesis, rearrangement, cycloaddition of cyclopentadiene and reaction with nucleophiles of the title compound are reported.